instead of to tho unit of weight of the raw fuel, a method which has already boon employed by Bunte and Ledebur. Ono thoroby obtains many lucid figures, which for the rest can be roforrod to tho raw fuel with facility. In this connection, one, only requires to bear in mind the percentage of C in the fuel.

In the production oE air-gas, one obtains a gas of the composition JM'7 per tumt. 00 + <>5B3 per cent. N, the combustible value of this #\w being 0-847 x 8,063=1,062 calories. The combustible value of the gas from 1 kilogramme C (inasmuch an 1 kilogramme C furnishes 1-86 cubic metre CO) is l-H()XiM)r>Jl=r>,(){)!} calories. In manufacture of the gas, 1 kilogramme 0 with a combustible value of 8,080 calories will he employed, hence the oiliciency of the producer amounts *

, o Hj()H() TOM per cent.

The gaso.n had at their origin (vide heat balance-sheet, p. 45) a heat content of "2,700 calories, of which 813 calories (heat content of tho C) originated in the producer, which again must he given off. There have been, therefore, 2,387 calories or ii!H> per cent, of the combustible value of the C converted into heat content of the gas produced. On production of the nteam air-gas previously considered, there is, on the other hand, a combustible gas which contains per cubic metre 0*361 cul)i« metre, CO and 0*047 1L Tho combustible value of this gas per cubic metro in thus

O'.'JO I x 3,003 ~ 1 , 1 05 calories

(H) 17x2, 020 ; 123 „_

1,228 calories

I that IB to way, 1(56 calorics or 15 per cent, higher than the pure air-gas. Tho cowbuHtiblo value of the gas from 1 kilogramme C thtiH, IB

\-m cmlne motro 00x3,003=5,093 calories O'JM cubic motro II X 2,020= 629

Total 0,322 ctilones.

There in than derived from pure C an efficiency of